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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/862,437

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EXAMINER

SERROU, ABDELALI

ART UNIT

PAPER NUMBER

2626

MAIL DATE

DELIVERY MODE

07/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/862,437

Applicant(s)

NAKAO, YOSHIO

Examiner

Abdelali Serrou

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 2000-290886.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Withdrawal of Finality

1. In response to the advisory action mailed on 08/21/06, applicant submitted an Appeal Brief filed on 03/12/07. The finality of the rejection of the office action mailed on 02/27/06 has been withdrawn.

Response to Arguments

2. Applicant argues that Fleischer discloses recognizing only a document element, such as a section, but does not disclose detecting various grading, such as, successive paragraphs (Appeal Brief, page 9). The examiner disagrees and points out that claim 1 does not recite extracting a set of successive paragraphs containing various grading of topics to obtain "a segmentation of a document using similarity graded topics". Claim 1 recites composing a thematic hierarchy, wherein each layer of the hierarchy expresses a segmentation of a document using similarity graded topics, which Fleicher does teach by segmenting a document (ranking sections within a document, col. 4, lines 1-30) using similarity graded topics (col. 4, lines 16-30, wherein Fleicher's system outputs ranked paragraphs based on the number of lines within that paragraph, upon which the size or grade of a paragraph is determined, and col. 4, lines 44-52, wherein a natural language processor ranks words and phrases based on their relevancy to the topic (subject matter) of the document).

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 10 is rejected under 35 U.S.C. 101 because it does not fall within one of the four categories patentable subject matter of 35 U.S.C § 101 (process, machine, manufacture, or composition of matter). The recited claim recites an Abstract Idea (a signal), which is a subject matter that is not a practical application or use of an idea, a law of nature or a natural phenomenon, and so is not patentable. See, e.g., *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498, 507 (1874) (“idea of itself is not patentable, but a new device by which it may be made practically useful is”); *Mackay Radio & Telegraph Co. v. Radio Corp. of America*, 306 U.S. 86, 94, 40 USPQ 199, 202 (1939) (“While a scientific truth, or the mathematical expression of it, is not patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be.”); *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759 (“steps of 'locating' a medial axis, and 'creating' a bubble hierarchy . . . describe nothing more than the manipulation of basic mathematical constructs, the paradigmatic 'abstract idea'”). See *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1852) (“A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.”); *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 132, 76 USPQ 280, 282 (1948) (combination of six species of bacteria held to be nonstatutory subject matter).

Accordingly, the subject matter of claim 7 is held to be nonstatutory subject matter.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ching (U.S. 6,560,620 filed on August 3, 1999) in view of Fleischer (US 5,960,383).

As per claims 1, and 9-12,

Ching a multi-document reading apparatus (Col. 1, lines 53-54) for recognizing a thematic hierarchy of each document;

extracting topic that commonly appears in the plurality of documents based on the recognized thematic hierarchies (col. 2, lines 24-26); and

taking out a description part corresponding to the extracted topic from each of the plurality of documents and outputting the taken-out description parts as related passages among of the documents (Fig. 8 and col. 2, lines 34-38).

Ching does not explicitly teach recognizing a thematic hierarchy of a document by comprehensively detecting topics of various grading that are included in each document, and by composing the topics in a form of a thematic hierarchy, where each layer of the thematic hierarchy expresses a segmentation of a document using similarly graded topics

Fleischer in the same field of endeavor teaches an apparatus, method, and computer readable medium for recognizing a thematic hierarchy of a document (col. 4, lines 44-52 , wherein a natural language processor ranks words and phrases based on their relevance to the topic (subject matter) of the document) by comprehensively detecting topics of various grading

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that are included in a document, and by composing the topics in a form of a thematic hierarchy, where each layer of the thematic hierarchy expresses a segmentation of a document using similarly graded topics (ranking sections within a document, col. 4, lines 1-30, wherein sections or paragraphs within a document are ranked and output based on the number of lines within that paragraph, upon which the size or grade of a paragraph is determined, and col. 4, lines 44-52, wherein a natural language processor ranks words and phrases based on their relevancy to the topic (subject matter) of the document).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention, to have added Fleischer's feature of recognizing a thematic hierarchy of a document by comprehensively detecting topics of various grading that are included in each document, and by composing the topics in a form of a thematic hierarchy, where each layer of the thematic hierarchy expresses a segmentation of a document using similarly graded topics to Ching's multi-documents reading device and side-by-side display feature to documents size detecting system, in order to provide a system that will help the user to compare and extract similarities and differences and quickly identify the changes between the two documents or subdocuments.

As per claim 2, Ching teaches calculating a relevance score between topics of the topic set based on lexical similarity of description parts corresponding to each topic of the topic set, and extracts a topic set having a relevance score equal to or more than a threshold that is set based on inclusive relationship of topics (col. 19, lines 19-35).

As per claims 3 and 4, Ching teaches a computer that compares the content of two different documents and displays the taken-out description (identified segment) from the first

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topic on one side and displays the identified segment from the second document on the other side (see figure 8 and col. 2, lines 34-38), and a two windows display system wherein the first window shows the original documents side-by-side and a second window showing the new versions of the original documents side-by-side (Fig. 2, element 210, and Fig. 6).

As per claims 5 and 6, Ching teaches a two windows display system wherein the first window shows the original documents side-by-side and a second window showing the new versions of the original documents side-by-side (Fig. 2, element 210, and Fig. 6). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify the presentation system to display two windows, one of the windows including the summaries side by side and the other including the original documents side by side. The motivation is convenience and time saving.

As per claim 7, Ching teaches a plurality of thematic hierarchies corresponding to a plurality of documents (Fig. 9), and a correspondence relationship between the pluralities of thematic hierarchies based on the plurality of common topics in related passages and a designated part of the plurality of documents in accordance with an instruction from the user given on the drawing (necessarily disclosed within the process of identifying similar or different section, within selected documents, and comparing their content, col. 2, lines 17-41).

As per claim 8, Ching teaches merging the content of two different documents to produce and output a new integrated document (col.3, lines 9-36, wherein the content of portions of interest from different documents are merged and displayed to the user for ease, and col. 7, lines 48-50, wherein thousands of pages can be grouped into hundreds or even thousands of sections).

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelali Serrou whose telephone number is 571-272-7638. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A. Serrou
07/20/07



DAVID HUDSPETH
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